HYUNDAI

HYUNDAI IT CORP.

User's Guide
Benutzerhandbuch
Manuel d'utilisation
Manuale dell'utente
Guía de usuario

DIGITAL SIGNAGE

MODELS.

- Base Frame Model : 32", 40", 42", 46", 52", 70", 82"
- Kiosk Model : 46", 52", 70", 82"

U.S.A.

U.S.FEDERAL COMMUNICATIONS COMMISSION RADIO FREQUENCY INTERFERENCE STATEMENT INFORMATION TO THE USER

NOTE : This equipment has been tested and found to comply with the limits for a Class A digital device pursuant to Part 15 of the FCC Rules.
These limits are designed to provide reasonable protection against harmful interference in a residential installation.
This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.
However, there is no guarantee that interference will not occur in a particular installation.
If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet of a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/Monitor technician for assistance.

Changes or modification not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
Connecting of peripherals requires the use of grounded shielded signal cables.

DECLARATION OF CONFORMITY

For the following product :

All of Digital sigange HYUNDAI IT provides

Manufactured at :

(factory name, address)

1. Hyundai IT Corp. 1229 In-ri, Apo-eup Gimcheon, Gyeongsangbuk-do 740-860 Rep. of Korea

2. Hyundai IT Corp. San 136-1 Ami-ri, Bubal-eub, Ichon-si, Kyungki-Do, 467-860 Rep. of Korea

We herewith confirmed to comply with the requirements set put in the Council Directive on the Approximation of the Lows of the Member States relating to Electromagnetic Compatibility Directive (89/336/EEC), Low-Voltage Directive(73/23/EEC , 93/68/EEC) . For the evaluation regarding the Directives, the following standards were applied:

EN60065 : 2002

EN55022 : 1998+A1 : 2000 +A2 : 2003 CLASS A

EN55024 : 1998+A1 : 2001 +A2 : 2003

EN 61000-3-2 : 2000 +A2 : 2005

EN 61000-3-3 : 1995 +A1 : 2001 +A2 : 2005

DIGITAL SIGNAGE

English

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**REMOTE CONTROL / RS232C COMMAND SPEC

Major features

This product has been designed to enable the user ease of use, and display information effectively and conveniently.

- TFT LCD Module adopted

  D320ML(I/G) / D400ML / D420ML(I/G/P/T) / D460ML(I/G/P/T/H) / D468ML(I/G/P/T/H) / D460SL(I) : 1366 x 768 WXGA (HD)

  D405ML(I/G) / D407ML(I/G/P/T) / D425ML(I/G/P/T)/ D465ML(I/G) / D467ML(I/G/P/T) / D525ML(I/G) / D825ML(I/G) / D525SL(I) / D705ML(I/G) / D705SL(I) / D825SL(I) : 1920 x 1080 WUXGA (Full HD)
- Vivid digital color display
- OSD control function
- Automatic Image control
- Automatic temperature control
- Analog/Digital RGB(HDMI) input and output
- Y Pb Pr/AV input and output
- Built in multi-vision function

Safety Information

This product is designed to ensure user's safety.
Avoid the following items to prevent serious electric shot and other dangers.

- Do not place wet objects on or around the product or the power cord.
- Do not cover or insert anything over or into the ventilation openings.
- Do not place in a location where damage can be caused by oil, smoke, high temperature, high humidity, dust etc.
- The product is not suitable for use at visual display workplaces according to §2 of the German Ordinance for Work with Visual Display Units.

- The main plug of the power supply cord shall remain readily operable.
- An apparatus with CLASS I construction shall be connected to a Mains socket outlet with a protective earthing connection.
- Make sure that the power cord and other cables are correctly plugged in.
- Plug the power cord correctly into the end, do not wobble/jiggle, it may cause electric shock fire.
- Do not touch the power cord with wet hands, it may cause electric shock.
- Overloaded AC outlets and extension cables are as dangerous as the power cord being damaged, call service engineer for replacement as it may cause electric shock or fire.
- Do not use multiple devices in a single power outlet, it may cause overheating or fire.
- Do not use or place sharp objects near the LCD surface, as this can cause damage to the screen itself.
- When cleaning the LCD screen / Surface, do not use chemical cleaning products as this can seriously damage the special coatings on the screen. Only use water to dampen a soft cloth and lightly clear the screen.
- Over time dust deposits can build up inside the product, this can cause the product to overheat thus causing premature malfunction or fire. Please do not attempt to clean the inside of the product yourself, please contact the local service agent.
- Do not use alcohol or strong chemical solvent such as methyl, ethyl or a Isopropyl.
- In the case of cleaning, be sure to remove the power cord and wipe with a soft dry fabric.
- Keep batteries for the remote control out of children's sight.
- Batteries should be inserted using the correct polarity (+,-).
- Use only new batteries, do not mix old & new.
- Place unit on a stable bracket or surface.
- More than 2 people should work together when moving or installing.

- Do not hang on or jump to the product or mounting rack.
- When the product is left unused for a long time, be sure to unplug the power cord.
- In the case of damage or breakage do not attempt to self repair, please contact local service engineer.
- For D460SL(I), D525SL(I), D705ML(I/G), D705SL(I), D825SL(I), install the product on the flat surface and secure the wheels not to move itself or fall down.
- For D460SL(I), D525SL(I), D705ML(I/G), D705SL(I), D825SL(I), make sure to turn the power off before connecting cables.
- This manual contains general instructions for the display products only so refer to the provided CD-ROM manual and the driver installation manual for the driver installation instructions for touch screen and/or touch screen itself.
- The apparatus shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the apparatus.
- Shall be connected to a MAINS socket outlet with a protective earthing connection.
- The disconnect device shall remain readily operable.
- The socket-outlet shall be installed near the equipment and shall be easily accessible.
- Use only with a cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

Image quality of the product

⚠ CAUSE

Due to the nature of LCD's property, Afterimage can occur. Afterimage appears when identical frames / images are displayed continuasly. If displayed for prolonged periods of time this can become permanent.

⚠ PREVENTION

When you display a freeze frame for a long time, lower the brightness and contrast (Brightness, 70/ Contrast, 80). Also it can be prevented by using moving frame.

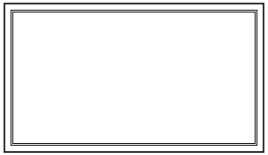
⚠ COUNTERMEASURES

Temporary afterimage can be alleviated by displaying white or moving frame about 10 hours.(But, permanent afterimage cannot be disappeared according to the property of LCD) This method is used to remove temporary afterimage that may occur after displaying a still frame for a certain time.
It can take several minutes or hours to remove afterimage according to the severity. In the case that your cannot avoid displaying identical still image continuously, you can prevent it by displaying moving image for 2 or 3 minutes in every hour. As the brightness of still image and time of display are the cause of afterimage, you are recommended to lower the brightness in that case.

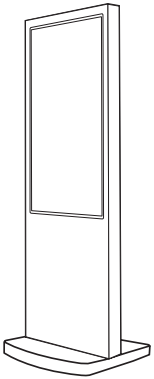
! Above problem shall not be covered by warranty.

Check the product list

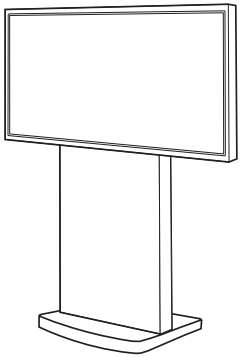
Please check the following components provided with the product after you open the box.



Base Frame Type

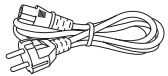


Kiosk Type (Portrait)



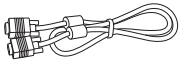
Kiosk Type (Landscape)

Remote control & batteries



Power Cord

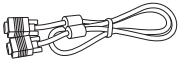
User's manual



D-SUB Cable

HDMI to DVI Cable (Option)

HDMI cable



RS232C Cable (Option)

! please check the following components provided with the product after you open the box and contact the dealer if any missing.

*** The contents may vary depending on models and sometimes the contents may be attached on the product.*

Proper location for product installation

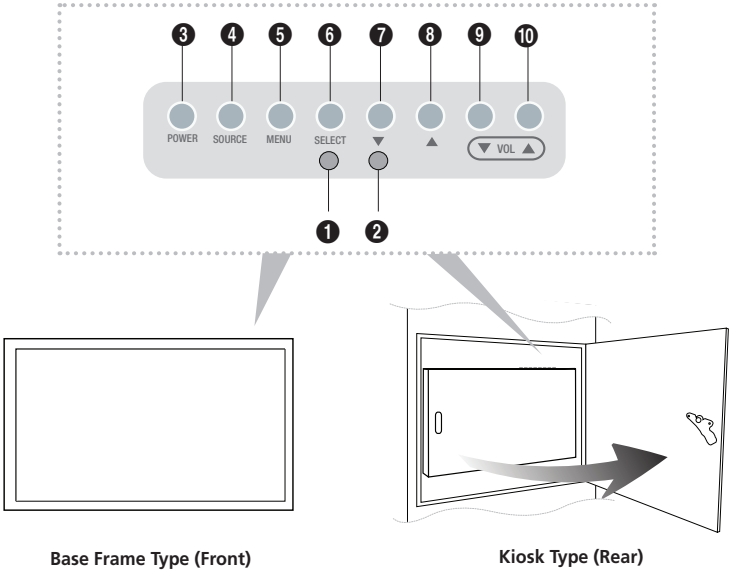
1. Locate the product at least 30cm away from the electric appliance or heating product.
2. The product must be placed at least 10cm away from the wall and ground.
3. Keep the product out of direct ray of light and locate screen not to be reflected by the sunlight.
4. Make sure the mounting rack firmly tightened before installation.

! **Please take extra care during installation, it is possible to cause damage if the unit is handled badly or knocked.**

Title and function of each part

Control Panel

1. Remote control receiving sensor.
2. Power display LED red-stand by/ Green-working.
3. ~ 10 OSD button.
3. Power button ; to turn the power on or off.
4. Input selection button : to select other connected device.
5. Menu button : to display menu or exit from the menu.
6. select button.
7. To move down in OSD menu.
8. To move up in OSD menu.
9. To move left and control the volume down in OSD menu.
10. To move right and control the volume up OSD menu.



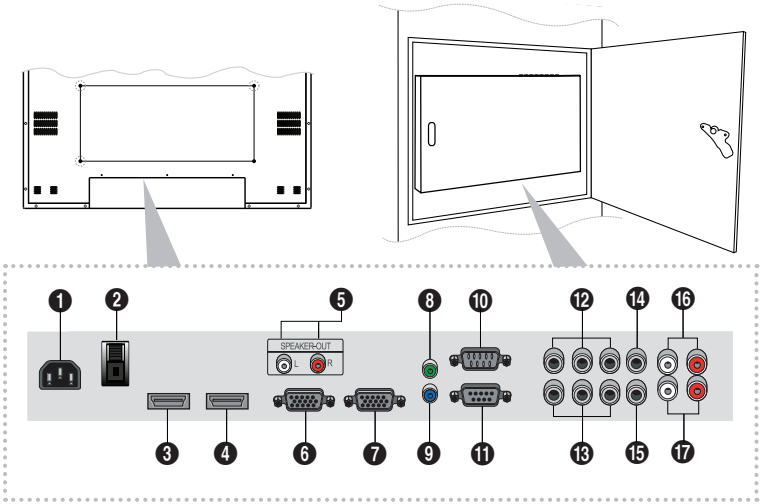
Base Frame Type (Front)

Kiosk Type (Rear)

*** The locations of OSD board and remote control receiving sensor may vary depending on models.*

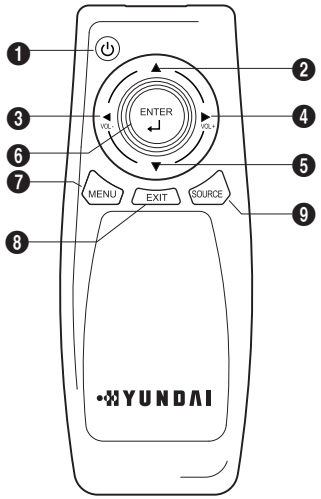
Terminal panel

1. AC IN
2. AC POWER SWITCH
3. HDMI IN
4. HDMI OUT
5. SPEAKER OUT
6. PC D-SUB IN
7. PC D-SUB OUT
8. UPGRADE
9. PC AUDIO IN
10. RS-232C OUT
11. RS-232C IN
12. COMPONENT IN (Y Pb Pr)
13. COMPONENT OUT (Y Pb Pr)
14. CVBS IN
15. CVBS OUT
16. COMPONENT AUDIO IN (L R)
17. COMPOSITE AUDIO IN (L R)



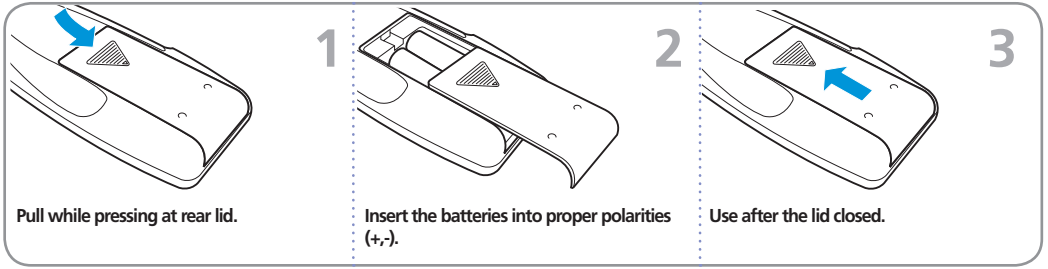
*** The locations of connectors may vary depending on models.*
- The items no. 12–17 are optional items.
- When you select the "Source"button on the remote control, the "Source"menu of the "Option" item is displayed.

Remote control

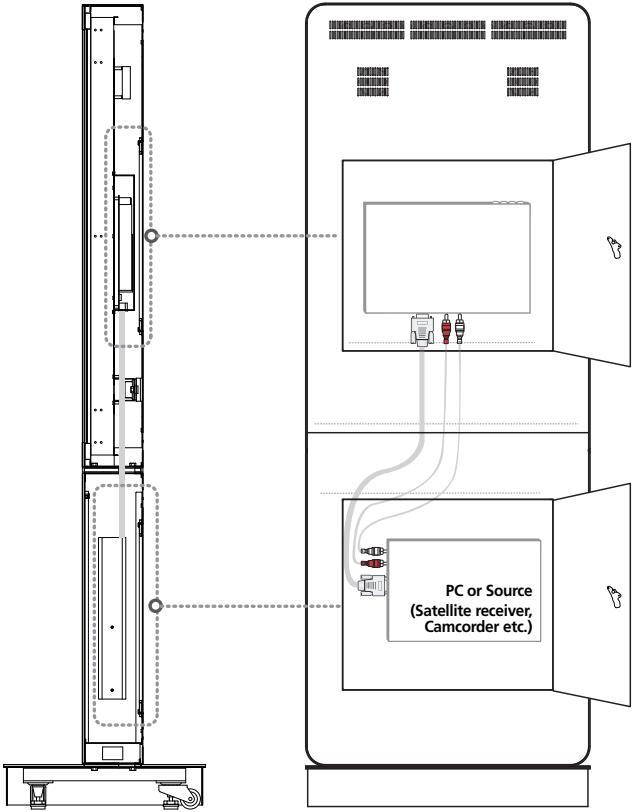


1. To turn the power on or off.
2. Move up in OSD menu.
3. To move left or control the volume down in OSD menu.
4. To move right or control the volume up in OSD menu.
5. To move down in OSD menu.
6. Select in OSD menu.
7. Display the menu screen.
8. Close the menu screen.
9. Convert the input signal.

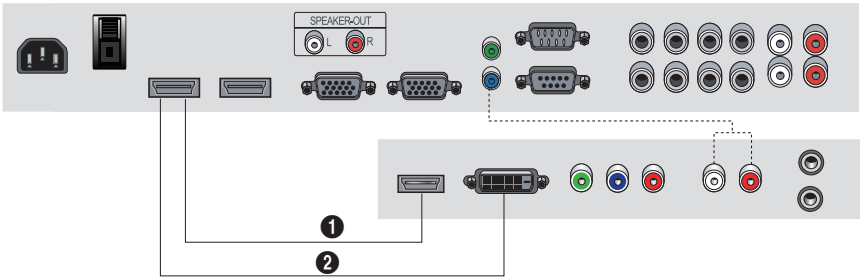
How to insert batteries



How to Connecting Kiosk



How to Connecting Digital RGB(HDMI)



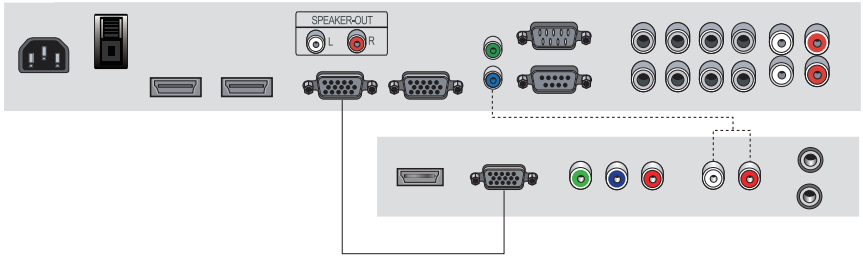
1. Please ensure that the power to the device is switched off, then connect each cable one after another before restoring power.
   - ❶ when connect HDMI to HDMI cable
   - ❷ when connect DVI to HDMI cable
     - must utilize device with DVI signal output from peripheral device
2. Connect the power code to the product.
3. Turn on the power of the product and peripheral device. Screen shows up within 10 seconds.
4. Select "HDMI" input by pressing "SOURCE" on OSD button or remote control.
   - HDMI input gives better video quality than analog RGB input.
   - Both HDMI and analog RGB support plug and play.

Support timing for HDMI

NO	Resolution	Horizontal frequency (KHz)	Vertical frequency (Hz)
1	480p	640 x 480p	60
2	576p	720 x 576p	50
3	720p	1280 x 720p	50 / 60
4	1080i	1920 x 1080i	50 / 60
5	640 x 480	31.47	59.94
6	640 x 480	37.88	60.32
7	1024 x 768	48.36	60
8	1360 x 768	47.70	60
9	1360 x 768	64.00	60
10	1600 x 1200	75.00	60
11	1920 x 1080	67.50	60
12	1080p	1920 x 1080p	60

! 9, 10, 11 and 12 are only for Full HD

How to Connecting analog RGB (PC D-SUB)



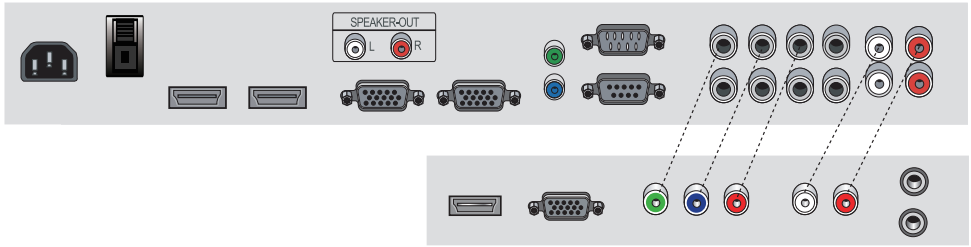
1. Please ensure that the power to the device is switched off, then connect each cable one after another before restoring power.
2. Connect D-SUB to D-Sub cable. Then tighten the screw of the cable after connecting PC D-SUB.
3. Connect the power cord to the product.
4. Turn on the power of the product and PC . The screen will appear within 10 seconds.
5. Select "PC" input by pressing "SOURCE" on OSD button or remote control.
   – HDMI input gives better video quality than analog RGB input.
   – Both HDMI and analog RGB support plug and play.

Support timing for PC

NO	Resolution	Horizontal frequency (KHz)	Vertical frequency (Hz)
1	640 x 480	31.47	59.94
2	800 x 600	37.88	60.32
3	1024 x 768	48.36	60.00
4	1360 x 768	47.71	60.00
5	1280 x 1024	64.00	60.00
6	1600 x 1200	75.00	60.00
7	1920 x 1080	67.50	60.00

! 5, 6 and 7 are only for Full HD

How to Connecting the component (Option)



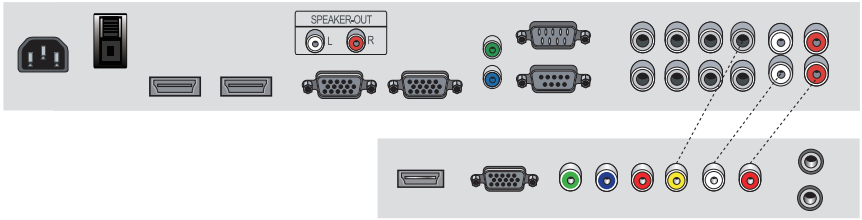
1. Please ensure that the power to the device is switched off, then connect each cable one after another before restoring power.
2. Connect the component cables to Y, Pb, and Pr correctly.
   Connect BNC cable and tighten.
3. Connect the power cord to the product.
4. Turn on the power of the product and peripheral device .
   The screen will appear within 10 seconds.
5. Select "COMPONENT" input by pressing "SOURCE" on OSD button or remote control.

Support timing for component & AV

NO	Resolution	Horizontal frequency (KHz)	Vertical frequency (Hz)
1	480i	720 x 480i	59.94 / 60
2	480p	640 x 480p	59.94 / 60
		420 x 480p	59.94 / 60
3	576i	720 x 576i	50
4	576p	720 x 576p	50
5	720p	1280 x 720p	59.94 / 60 / 50
6	1080i	1920 x 1080i	59.94 / 60 / 50
7	1080p	1920 x 1080p	60 / 50

! **7 is only for Full HD**

How to Connecting the the video (Option)

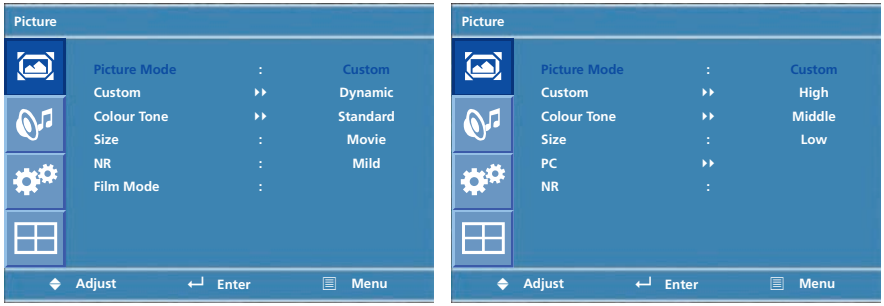


1. Please ensure that the power to the device is switched off, then connect each cable one after another before restoring power.
2. Connect video cable and BNC cable, and then tighten.
3. Connect the power cord to the product.
4. Turn on the power of the product and peripheral device .
   The screen will appear within 10 seconds.
5. Select AV input by pressing "SOURCE" on OSD button or remote control.

Adjusting OSD and explanation of its function

How to Select the Picture Mode

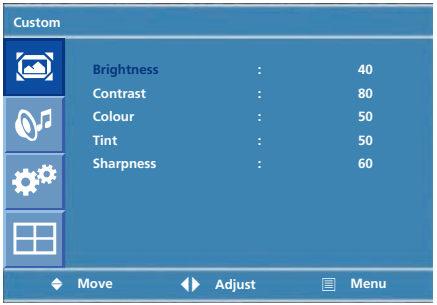
Users can automatically adjust the picture mode according to the input mode.



1. Press Menu button. Menu items appear on the screen.
2. Press ↵ button to select "Picture" Icon. "Picture mode" is highlighted.
3. Press ▶ or ↵ buttons to select "Picture mode".
4. The menu changes in the following order.
   AV/Component input : Custom -> Dynamic -> Standard -> Movie -> Mild
   PC/HDMI Input : Custom -> High -> Middle -> Low
5. Press EXIT button to escape OSD MENU or press MENU button to return to the previous menu.
   - Custom : When the user wants to set the values directly.
   - Dynamic : Clear display
   - Standard : Most video contents are appropriate to this mode.
   - Movie : When watching a movie
   - Mild : Soft display.

How to Set the Desired Picture

Users can manually adjust their desired picture



1. Press Menu button.
   Menu items appear on the screen.
2. Press ↵ button to select "Picture" Icon.
   "Picture mode" is highlighted.
3. Press ▲ / ▼ buttons to move to "Custom" and press ▶ or ↵ buttons to select "Custom".
4. Select required option by pressing the ▲ / ▼ or ↵ button, then Press ◀ / ▶ button to adjust.
5. Press EXIT button to escape OSD MENU or press MENU button to return to the previous menu.

- Brightness : Adjust the brightness of the entire picture.
- Contrast : Adjust the brightness and darkness of the object and backgrounds.
- Colour : Adjust colors into deeper or lighter colors.(not operational in PC and HDMI mode)
- Tint : Adjust colors naturally.(not operational in PC, HDMI and component mode)
- Sharpness : Adjust the clarity of object outlines.(not operational in PC and HDMI mode)

How to Select a Colour Tone

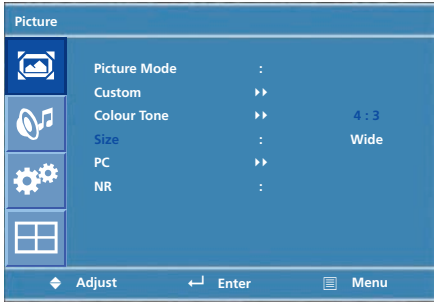
Users can adjust Color as users want.

1. Press Menu button.
   Menu items appear on the screen.
2. Press ↵ button to select "Picture" Icon.
   "Picture Mode" is highlighted.
3. Press ▲ / ▼ buttons to move to "Colour Tone"
4. Press ▶ or ↵ buttons to select "Colour Tone" .
5. Press ▲ / ▼ buttons, then the menu changes in the following order.
   Custom -> Cool2 -> Cool1 -> Normal -> Warm1 -> Warm2
6. Press EXIT button to escape OSD menu or press MENU button to return to the previous menu.

- Custom : When the user wants to set the degree of RGB directly.
- Cool : For cool colors with bluish tone.
- Normal : For a general Colour Tone.
- Warm : For warm colors with reddish tone.

How to Set the Display Size

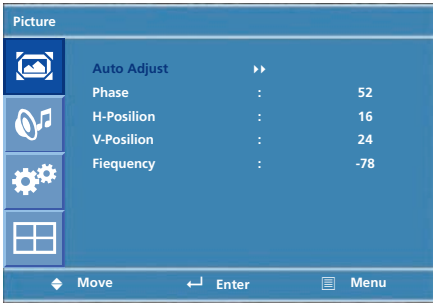
Users can adjust the display scale as they want



1. Press Menu button. Menu items appear on the screen.
2. Press ↵ button to select "Picture" Icon. "Picture Mode" is highlighted.
3. Press ▲ / ▼ buttons to move to "Size".
4. Press ◀ / ▶ or ↵ buttons and press ▲ / ▼ then the mode change in the following order.
   AV/Component Inputs : Auto Size ->Wide -> Panorama -> Zoom -> 4 : 3 -> 14 : 9
   PC input : Wide -> 4 : 3
   DVI input : 4 : 3 -> Wide -> 1 : 1
5. Press EXIT button to escape OSD MENU or press MENU button to return to the previous menu.

- Auto Size - Screen size adjust automatically by screen signal.
- Wide - General broadcast picture is adjusted to 16:9.
- Panorama - Picture enlarged to 16:9 format, letter box format.
- Zoom - Zoom in 16:9 in vertical direction
- 4 : 3 - 4 : 3 general picture size
- 14 : 9 - 14 : 9 picture size
- 1 : 1 - 1 : 1 real size

How to set image adjustment in PC mode (Supported only in PC mode)

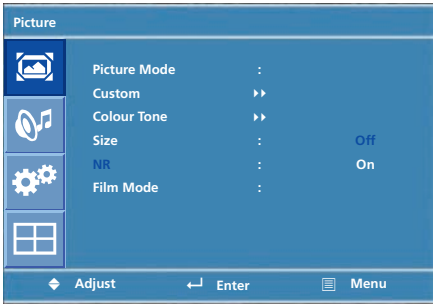


1. Press Menu button.
   Menu items appear on the screen.
2. Press ↵ button to select "Picture" Icon.
   "Picture Mode" is highlighted.
3. Press ▲ / ▼ buttons to move to PC and press ▶ or ↵ buttons to select to "PC"
4. "Auto Adjust" is high lighted.
5. Press ↵ button to execute the "Auto Adjust"
6. Select the required option by pressing the ◀ / ▶ or ↵ button, then press ◀ / ▶button to adjust
7. Press EXIT button to escape OSD MENU or press MENU button to return to the previous menu.

- Auto Adjust : Horizontal/vertical positions are automatically adjusted.
- Phase : To eliminate the shake of the picture.
- H-Position : To adjust the horizontal position of the picture.
- V-Position : To adjust the vertical position of the picture.
- Frequency : To eliminate the shake of picture.

How to Set Noise Reduction(NR)

User can eliminate noises on the screen in AV/Component/HDMI mode.(Not supported in PC mode)



1. Press Menu button.
   Menu items appear on the screen.
2. Press ↵ button to select "Picture" Icon.
   "Picture Mode" is highlighted.
3. Press ▲ / ▼ buttons to move to "NR" .
4. Press ◀ / ▶ buttons to select to "NR".
5. Press ▲ / ▼ or ↵ buttons to set "On/Off".
6. Press EXIT button to escape OSD MENU or press MENU button to return to the previous menu.

How to Select the Audio Mode

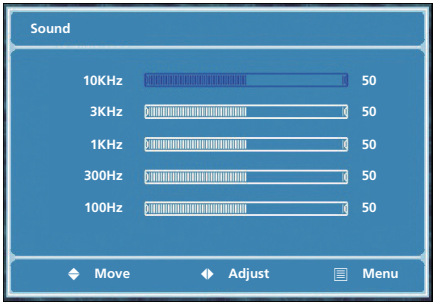
Users can adjust sound mode automatically as they want.

1. Press Menu button. Menu items appear on the screen.
2. Press ▲ / ▼ buttons to move to "Sound" Icon.
3. Press ↵ button to select "Sound" Icon. "Mode" is highlighted.
4. Press ▶ or ↵ buttons, to select to Sound mode.
   then the menu changes in the following order.
   Custom->Standard -> Music -> Movie -> Speech
5. Press EXIT button to escape OSD MENU or press MENU button to return to the previous menu.

- Custom : When the user wants to set the values directly.
- Standard : For the general sound. Most audio contents are appropriate to this mode.
- Music : For enjoying original sound.
- Movie : Grandiose sound.
- Speech : Clear sound.

How to Adjust the Desired Audio Mode

Users can adjust sound mode automatically as they want.



1. Press Menu button. Menu items appear on the screen.
2. Press ▲ / ▼ buttons to move to "Sound" Icon.
3. Press ↵ button to select "Sound" Icon. "Mode" is highlighted.
4. Press ▲ / ▼ buttons to move to "Balance" or "Equalizer" .
5. Press ↵ buttons to select "Balance" or "Equalizer". Balance or Equalizer menu appears.
6. Select required option by pressing the ▲ / ▼ buttons, then Press ◀ / ▶ buttons to adjust.
7. Press EXIT button to escape OSD MENU or press MENU button to return to the previous menu.

- Balance : Adjusts the balance of left and right speakers.
- Equalizer : Adjusts the audio output signal in the desired band.

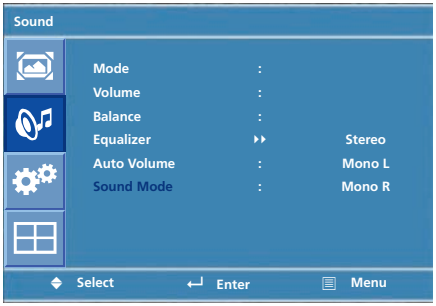
How to Select Auto Volume

This function will automatically give a similar volume size to each channel.

1. Press Menu button.
   Menu items appear on the screen.
2. Press ▲ / ▼ buttons to move to "Sound" Icon.
3. Press ↵ button to select "Sound" Icon.
   "Mode" is highlighted.
4. Press ▲ / ▼ buttons to move to "Auto Volume".
5. Press ◀ / ▶ or ↵ buttons to select "On/Off".
6. Press ▲ / ▼ or ↵ buttons to set to "On/Off".
7. Press EXIT button to escape OSD MENU or press MENU button to return to the previous menu

How to Select Sound Mode

Depending on the particular program being broadcast, you can select stereo or mono.



1. Press Menu button.
   Menu items appear on the screen.
2. Press ↵ button to select "Sound" Icon.
   "Mode" is highlighted.
3. Press ▲ / ▼ buttons to move to "Sound Mode".
4. Press ▶ or ↵ buttons to select to "Sound Mode".
5. Press ▲ / ▼ buttons to select to "Stereo"," Mono L"or "Mono R.
6. Press exit button to escape OSD MENU or press MENU button to return to the previous menu

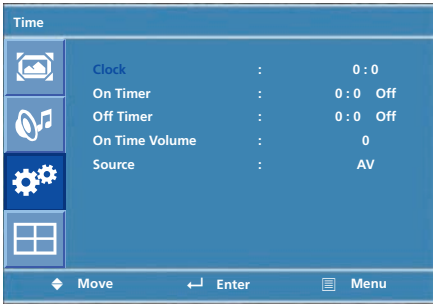
- Choose "Stereo" for channels that are broadcasting in Stereo.
- Choose "Mono" for channels that are broadcasting in Mono, or if you are having difficultly receiving a Stereo signal.

How to Reset

1. Press Menu button.
   Menu items appear on the screen.
2. Press ↵ button to select "Setup" Icon.
   "Reset" is highlighted.
3. Press ▶ or ↵ buttons to select to "Reset".
4. Press ↵ buttons to choose to "Reset".
5. Press EXIT button to escape OSD MENU or press MENU button to return to the previous menu.

When you select "Reset" user setting Value will initialize.

How to Set Clock,Sleep Time, ON/OFF Time



1. Press Menu button.
   Menu items appear on the screen.
2. Press ↵ button to select "Setup" Icon.
   "Reset" is highlighted.
3. Press ▲ / ▼ buttons to move to "Time".
4. Press ▶ or ↵ buttons to select "Time".
   Time menu appears, then "Clock" is highlighted.
5. Press ◀ / ▶ buttons to move between Hour, Minute and Press ▲ / ▼ buttons to set Hour, Minute.

When the power supply(AC main power) is cut off, the clock is reset to the value before the Timer set.

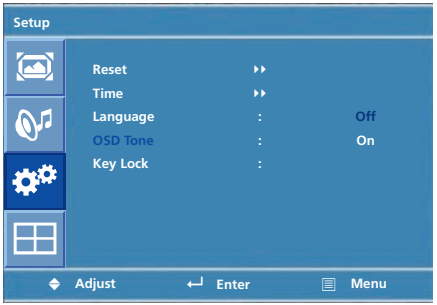
<Go to step 6 if you need to set the "On or Off Timer">
6. Press ▲ / ▼ buttons to move to "On or Off Timer".
7. Press ▶ or ↵ buttons to select "On or Off Timer" .
8. Press ◀ / ▶ buttons to move between Hour, Minute and on/ off and Press ▲ / ▼ buttons to set Hour, Minute and on/off
<go to step 9 if you need to set the "On Time Volume">
9. Press ▲ / ▼ buttons to move to "On Time Volume".
10. Press ◀ / ▶ buttons to adjust Volume.

<go to step 11 if you need to set the "Source">
11. Press ▲ / ▼ buttons to move to "Source"
12. Press ▶ or ↵ buttons to select to "Source"
13. Press ▲ / ▼ buttons to set to Source

Choosing the Your Languages

1. Press Menu button.
   Menu items appear on the screen.
2. Press ↵ button to select "Setup" Icon.
   "Reset" is highlighted.
3. Press ▲ / ▼ button to move to "Language" and press ▶ or ↵ button to select to Language.
4. Press EXIT button to escape OSD MENU or press MENU button to return to the previous menu.

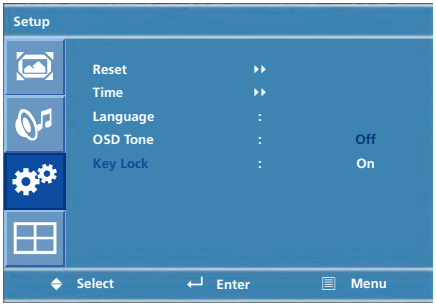
How to set OSD tone



1. Press Menu button.
   Menu items appear on the screen.
2. Press ↵ button to select "Setup" Icon.
   "Reset" is highlighted.
3. Press ▲ / ▼ buttons to move to "OSD Tone"
4. Press ▶ or ↵ buttons to select to "OSD Tone".
5. Press ▲ / ▼ or ↵ buttons to set to "On/Off".

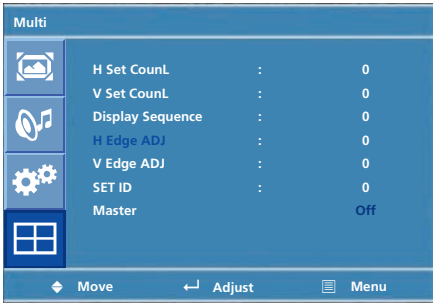
How to Set Key-Lock

User can lock the control buttons on the front bottom of the Monitor.



1. Press Menu button.
   Menu items appear on the screen.
2. Press ▲ / ▼ button to move to "Setup" Icon.
3. Press ↵ button to select "Setup" Icon.
   "Reset" is highlighted
4. Press ▲ / ▼ buttons to move to "Key Lock".
5. Press ▶ or ↵ buttons to select to "Key Lock".
6. Press ▲ / ▼ or ↵ buttons to set to "On/Off".
7. Press EXIT button to escape OSD MENU or press MENU button to return to the previous menu.

How to Set the Multi Function



1. Press Menu button.Menu items appear on the screen.
2. Press ▲ / ▼ button to move to "Multi" Icon.
3. Press ↵ button to select "Mutli" Icon. "Mutli Function" is highlighted
4. Press ▲ / ▼ buttons to set up and change the location of the screen to be displyed. H Set Count/ V Set Count/Display Sequence / H Edge ADJ / V Edge ADJ / SET ID/ Master

(Example of installation) install 3x2 with 6 units

Product 1	Product 2	Product 3
Product 4	Product 5	Product 6

Set up Value

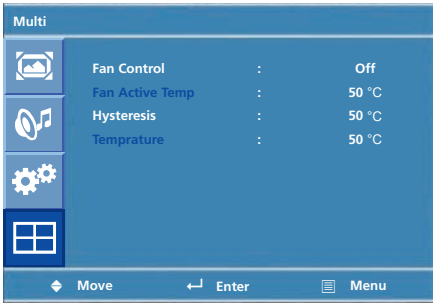
installation item	Product 1	Product 2	Product 3	Product 4	Product 5	Product 6
H Set Count	3	3	3	3	3	3
V Set Count	2	2	2	2	2	2
Display Sequence	1	2	3	4	5	6
H Edge ADJ / V Edge ADJ	These are the set up value to make up the un-displayed area of Bezel Part. It can be adjustable according to the contents					
SET ID	It is necessary to control via RS232 communication port on PC. But do not need to set up or change when they are not controlled by PC					
Master	You are recommended to use the Master on state only one of products that you are using					

[Cautions]

- In case of connecting the products in series from the input device (HDMI, analog RGB, component, video etc.), up to about 25 units are possible. But, the number of connecting devices can be different from the input signal level of each device and thereby amplified distributor can be needed for this product.
  (when over 25 units are connected, the screen may not be displayed properly)
- You are recommended to use the component and progressive frequency of digital RGB in case of using multi-vision function.
  (It may not be displayed properly when using Video input and interlace frequency)

How to Set the Heat Control

"Heat control" allows you set up fan operation according to interior temperture of the product



1. Press Menu button. Menu items appear on the screen.
2. Press ▲ / ▼ button to move to "Multi" Icon.
3. Press ↵ button to select "Multi" Icon. "Multi Function" is highlighted
4. Press ▲ / ▼ buttons to move to "Heat Control".
5. Press ▶ or ↵ buttons to set up and change the Heat Control.

"Fan Control" - AS the fan operation options, following 3 options are available
- Off : Fan is idle in Off status.
- On : Fan is working in On-status.
- Auto : Fan start working when the working temperature is higher than the measured temperature.

• Fan active Temp -set up value to start the fan.
• Hysteresis- tolerance value of fan operation temperature.
• Temperature- measured current temperature by sensor affixed to PCB'A

Diagnosis

When the product is not working properly, please check before you call customer center.

Symptoms	How to solve the problem
Screen displays late after the power is on.	It happens not to show the screen noise when the power is on. Therefore it is not a defect. But if the screen doesn't show up within 5 minutes from turning on, please contact the customer center.
The screen is too dark or bright?	Adjust the brightness or contrast.
The screen doesn't show up indicating "Out of range".	You are using a signal which is outside the operating frequencies of the product (Unsupported), please change you video signal.
when the screen is scrambled.	please check the cable connection and the signal generator and contact customer center.
Automatic switching-on function is not working / the input data were disapperared when reboot the system after setting up the time	Automatic switching-on function is working when the product has been turned off via remote control or power button on main body. It is because that the set-up values are deleted when the power cord is unplugged.
The screen and sound are not synchronized	Check if the power is on, suspended or is correctly plugged into the outlet. Plug the power cord of other peripheral device to the outlet that the product is being connected.

Symptoms	How to solve the problem
The screen displays without the sound.	check the volume up and down with remote control and audio connection cable
No sound from either right speaker or left speaker.	Confirm the status of the sound balance on OSD menu and check the connection of speaker cable.
Remote control doesn't work.	Check if any foreign substances in the sensor and the polarity of battery inserted. If the batteries are drained, replace them with new batteries.
PC D-SUB doesn't work.	Set up the resolution referring to frequency table of input terminal. And re-boot the system as it supports Plug and Play.
Fan on the rear doesn't work	Check the status of temperature control on OSD menu
The screen doesn't show up when display the multi-vision.	check if it is set up to video input. Confirm if Interlace Timing was inputted. (Refer to the cautions on Page 31)

• If any problem unsolved by above diagnosis, please call customer center.

Specifications

D320ML(I/G)/D400ML/ D420ML(I/G/P/T)/ D460ML(I/G/P/T/H)/ D468ML(I/G/P/T/H)/D460SL(I)

Model	D320ML(I/G) / D400ML / D420ML(I/G/P/T) / D460ML(I/G/P/T/H) / D468ML(I/G/P/T/H) / D460SL(I)
LCD	1366 x 768 Pixel (HD)
Screen size (HxV/mm)	D320ML(I/G) : 697.7 x 392.3 / Pixel pitch 0.51 D400ML : 885.2 x 497.7 / Pixel pitch 0.65 D420ML(I/G/P/T) : 930.3 x 523.0 / Pixel pitch 0.68 D460ML(I/G/P/T/H), D468ML(I/G/P/T/H) : 1018.4x572.5 / Pixel 0.75 D460SL(I) : 1018.4x572.5 / Pixel 0.75
Recommended resolution	1360 x 768 @60Hz
Input	Digital RGB, Analog RGB, Component(Option), Video(Option), PC Audio L/R, Component Audio L/R(Option), Video Audio L/R(Option), RS232C
Output	Digital RGB, Analog RGB, Component(Option), Video(Option), Audio L/R, RS232C
Power	AC 100- 240V 50/60Hz
Consumption (Typical)	D320ML(I/G) :170W / D400ML :200W / D420ML(I/G/P/T) :220W / D460ML(I/G/P/T/H), D468ML(I/G/P/T/H) :260W / D460SL(I) :260W
Control type	Remote control, key control

• Above specification may be changed without prior notification for quality improvement.

Specifications

D405ML(I/G)/D407ML(I/G/P/T)/
D425ML(I/G/P/T)/D465ML(I/G)/
D467ML(I/G/P/T)/ D525ML(I/G)/
D825ML(I/G)/ D525SL(I)/
D705ML(I/G)/D705SL(I)/
D825SL(I)

Model	D405ML(I/G)/D407ML(I/G/P/T)/D425ML(I/G/P/T)/D465ML(I/G)/ D467ML(I/G/P/T)/D525ML(I/G)/D825ML(I/G)/ D525SL(I)/D705ML(I/G)/ D705SL(I)/D825SL(I)
LCD	1920 x 1080 Pixel (Full HD)
Screen size (HxV/mm)	D405ML(I/G) : 885.6 x 498.15 / Pixel pitch 0.46 D407ML(I/G/P/T) : 885.2 x 497.7 / Pixel pitch 0.46 D425ML(I/G/P/T) : 930.25 x 523 / Pixel pitch 0.4845 x 0.4845 D465ML(I/G) : 1018.08 x 572.67 / Pixel pitch 0.53 D467ML(I/G/P/T) : 1018.4 x 572.5 / Pixel pitch 0.53 D525ML(I/G) : 1152.00 x 684.00 / Pixel pitch 0.60 D825ML(I/G) : 1806 x 1015 / Pixel pitch D525SL(I) : 1152.00 x 684.00 / Pixel pitch 0.60 D705ML(I/G), D705SL(I) : 1549.44 x 871.56 / Pixel pitch 0.81 D825SL(I) : 1806 x 1015 / Pixel pitch
Recommended resolution	1920 x 1080 @ 60Hz
Input	Digital RGB, Analog RGB, Component(Option), Video(Option), PC Audio L/R, Component Audio L/R(Option), Video Audio L/R(Option), RS232C
Output	Digital RGB, Analog RGB, Component(Option), Video(Option), Audio L/R, RS232C
Power	AC 100- 240V 50/60Hz
Consumption (Typical)	D405ML(I/G) : 200W / D407ML(I/G/P/T), D425ML(I/G/P/T) : 260W / D465ML(I/G), D467ML(I/G/P/T) : 250W / D525ML(I/G), D825ML(I/G) : 320W / D705ML(I/G), D705SL(I) : 800W / D825SL(I) : 900W
Control type	Remote control, key control

• Above specification may be changed without prior notification for quality improvement.

< REMOTE CONTROL / RS232C COMMAND SPEC >

1. SPEED : 9600 Baud/s, 8 bit, No parity, 1 Stop bit.

2. REMOTE CONTROL WAVE FORM

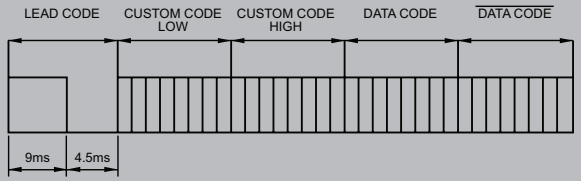
1) Remote Control System Infrared rey system

fosc=455KHZ fc=fosc/2=37.917KHZ

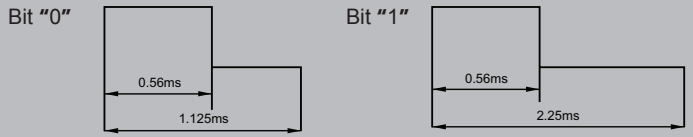
2) Signal code

2-1) Transmission

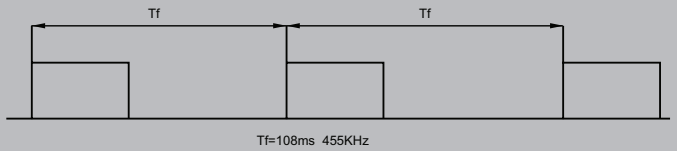
- One pulse



- Bit Desciption



- Flame Interval

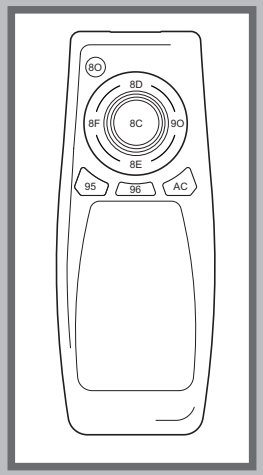


3. REMOTE CONTROL KEY CODE TABLE

Custom Code : 7788H

KEY	DATA
POWER	0x80
MENU	0x95
EXIT	0x96
SOURCE	0xAC
ENTER	0x8C
UP	0x8D
DOWN	0x8E
LEFT	0x8F
RIGHT	0x90

DATA LAYOUT



4. COMMAND FORMAT

* SET ID must select from the OSD menu and can't be select through the COMMAND.
* Only one unit can be set as Master unit, select Master ON from the OSD Menu. (DEFAULT OFF)
* For viewing COMMAND from Hyper Terminal windows, One unit must set as MASTER ON

HEADER	SET ID	COMMAND TYPE	END
did:	x- or all-	Command	

<Command example>

did:1-pf.	To power off set that is SET ID 1
did:all-fr.	To factory reset all set
did:2-fn.	To fan on set that is SET ID 2

5. COMMAND TYPE

Command	Description
pn / pf	**P**ower o**n** / **P**ower o**f**f
fn / ff	**F**an o**n** / **F**an o**f**f
fr	**F**actory **r**eset
sd / sp / sc / sa	**S**ource change (**d**:HDMI, **p**:PC, **c**:Component, **a**:AV)
sbu / sbd	**S**ub-**B**rightness 1 step **u**p / **d**own
rou / rod	**R**ed **O**ffset 1 step **u**p / **d**own
gou / god	**G**reen **O**ffset 1 step **u**p / **d**own
bou / bod	**B**lue **O**ffset 1 step **u**p / **d**own
scu / scd	**S**ub-**C**ontrast 1 step **u**p / **d**own
rgu / rgd	**R**ed **G**ain 1 step **u**p / **d**own
ggu / ggd	**G**reen **G**ain 1 step **u**p / **d**own
bgu / bgd	**B**lue **G**ain 1 step **u**p / **d**own
blu / bld	**B**ACKLIGHT Va**l**ue 1 step **u**p / **d**own
chxvy	H Set Count is **x**, V Set Count is **y**
nhxvy	H Set window is **x**, V Set window is **y**
ehxvy	H Edge ADJ is x, V Edge ADJ is **y**
x (figure)	Display sequence no is **x**
cr	Enable Color Control Mode; Under Cr mode, user can set color value without Header command ex) ro120 : Red Offset 120, bg100 : Blue Gain 100
ir	Enable Ir Mode, In IR Mode, user can use keyboard buttonsas remote controller
ps	Current **p**ower **s**tatus check. If current power is on(off), Hyper Terminal windows display “Power On(Power Off)” message.
is	Current **i**nput source **s**tatus check. If current input source is VGA, Hyper Terminal windows display “VGA Mode” message.

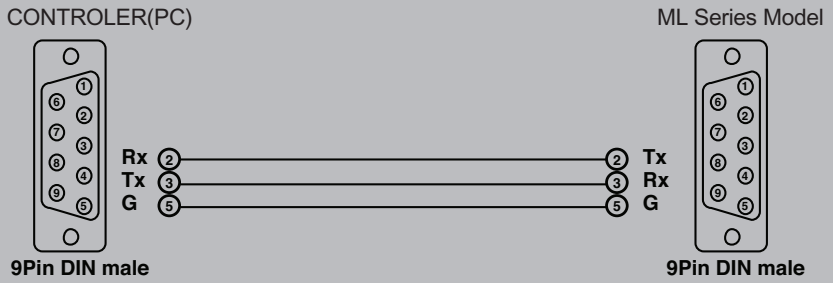
6. REMOTE CONTROL KEY CODE TABLE

Key value		Key value	
q	**q**uit (from Ir mode)	t	volume up
p	**p**ower	v	volume down
u	**u**p	r	mute
n	dow**n**	c	pi**c**turemode
j	left	l	**s**leep
k	right	d	soun**d**
e	**e**nter	s	**s**.mode
m	**m**enu	y	info->displa**y**
x	e**x**it	The others	quit (from Ir mode)
i	**i**nput		

7. REMOTE CONTROL KEY CODE TABLE

Command	Description
did:all-wn=si.	Change all units 'Display sequence' to 'SET ID'
did:allfst-hxvy	Set all units to 'H SET Count' = x, 'V SET Count' = y, 'Display sequence' = 'Select to SET ID'

8. CONNECTION



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